

136

9 Jun 95

BASE ORDER 5100.12A

From: Commanding General

To: Distribution List

Subj: CONFINED SPACE PROGRAM

Ref: (a) 29 Code of Federal Regulations, Section 1910.146

Encl: (1) Permit Required Confined Space Decision Flow Chart

(2) Permit Required Confined Space Hazard Evaluation Form

(3) MCLB Albany Confined Space Entry Permit

1. Purpose. To establish policies and procedures that protect the safety and health of Base employees entering or working in confined spaces. This Order applies to all personnel at MCLB Albany, including contractor personnel.

2. Cancellation. Base Order 5100.12.

3. Summary of Revision. The promulgation of reference (a) Permit Required Confined Spaces, effectively outdates Base Order 5100.12, Gas Free Engineering Program. In addition, several references cited in the Base's original Order have become obsolete or no longer apply to ashore Department of the Navy facilities.

4. Definitions

a. Acceptable Entry Conditions: The conditions that must exist to allow entry and ensure that workers can safely enter into and work within the permit space.

b. Attendant: An individual stationed outside one or more permit spaces to monitor the safety of the authorized entrants inside, and who performs all attendant's duties assigned in this program.

c. Authorized Entrant: A worker authorized by the entry supervisor to enter a permit space.

d. Blanking or Blinding: The absolute closure of a pipe, line or duct by fastening a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum

pressure of the pipe, line, or duct with no leakage beyond the plate.

e. Confined Space: A space that:

(1) Is large enough and so configured that a worker can bodily enter and perform assigned work; and

(2) Has limited or restricted means for entry or exit (tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and

(3) Is not designed for continuous occupancy.

f. Confined Space Program Administrator (CSPA): The properly trained, qualified and appointed in writing by the Commanding General or designated representative, member of the Safety and Occupational Health staff responsible for the administrative and technical aspects of the Confined Space Program.

g. Assistant Confined Space Program Administrators (ACSPA's): Properly trained, qualified and appointed in writing by the Commanding General or designated representative, members of the Safety and Occupational Health staff responsible for assisting the CSPA.

h. Confined Space Technicians (CST): Personnel recommended by the CSPA and appointed in writing by the Safety and Occupational Health Manager, who are authorized to perform space hazard evaluations, atmospheric tests and issue entry permits for spaces or classification of spaces identified in their appointment orders.

i. Double Block and Bleed: The closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

j. Emergency: Any occurrence (including failure of hazard control or monitoring equipment) or event internal or external to the space that could endanger entrants.

k. Engulfment: The surrounding and effective capture of a person by a liquid or finely divided (flow able) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

l. Entry: The action by which a person passes through an opening into a permit required confined space with the intent of entering the space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

m. Entry Permit (Permit): The written or printed document that is completed by the entry supervisor in conjunction with the confined space representative (atmospheric tester), to allow and control entry into a permit space.

n. Entry Supervisor: The person responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry. An entry supervisor may also serve as an attendant or as an authorized entrant as long as that person is trained and equipped as required for each role he or she fills. The duties of entry supervisor may be passed from one individual to another during the course of an entry operation.

o. Hazardous Atmosphere: An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

- (1) Flammable gas, vapor, or mist in excess of 10% of its lower explosive limit (LEL);
- (2) Airborne combustible dust at a concentration that meets or exceeds its LEL. (This concentration may be approximated as a condition in which the dust obscures vision at a distance of 5 feet (1.52 m) or less);
- (3) Atmospheric oxygen concentration below 19.5% or above or above 23.5%;
- (4) Atmospheric concentration of any substance listed by Occupational Safety and Health Administration (OSHA) in 29 CFR 1910, Subpart G, "Occupational Health and Environmental Control", or in Subpart Z, Toxic and Hazardous Substances, above the numerical value of the permissible exposure limit (PEL);
or
- (5) Any other atmospheric condition that is immediately dangerous to life or health (IDLH).

NOTE: For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information such as the American

Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV's), Material Safety Data Sheets (MSDS's), published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

p. Hot Work Permit (Hazardous Operation Permit): The Base Fire Department's written authorization to perform operations capable of providing a source of ignition. Examples of hot work include all flame heating, welding, torch cutting, brazing, carbon arc gouging, or any work which produces heat by any means greater than or equal to 400 degrees Fahrenheit. Hot work also includes operations involving other sources of ignition such as spark or arc producing tools or equipment, static discharges, friction, impact, open flames or embers, non-explosion proof lights, fixtures, motors or equipment in the presence of flammable or flammable atmospheres. Hot work permits are issued in accordance with BO P11320.2.

q. IDLH: Any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from the permit space.

r. Inerting: The displacement of the atmosphere in a confined space by a non combustible gas (such as nitrogen) to such an extent that the resulting atmosphere is non combustible. (This procedure produces an IDLH oxygen-deficient atmosphere.)

s. Isolation: Positively preventing any unwanted form of energy (or other agent with a serious potential for hazard) from entering a permit space. Methods include: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tag out of all sources of energy or blocking or disconnecting all mechanical linkages.

t. Line Breaking: The intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

u. Non-Permit Confined Space: A confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

v. Oxygen Deficient Atmosphere: An atmosphere containing less than 19.5% oxygen by volume.

w. Oxygen Enriched Atmosphere: An atmosphere containing more than 23.5%

oxygen by volume.

x. Permit-Required Confined Space Program (PRCS): A confined space that has one or more of the following characteristics:

- (1) Contains or has a potential to contain a hazardous atmosphere;
- (2) Contains a material that has the potential for engulfing an entrant;
- (3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
- (4) Contains any other recognized serious safety or health hazard.

y. PRCS Program (Permitting Requirements): Paragraph 7 of this Order which describes the base's requirements for controlling, and, where appropriate, protecting employees from permit space hazards and for regulating employee entry into permit spaces.

z. Prohibited Condition: Any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

aa. Rescue Service: The personnel designated to rescue workers from permit spaces. The Base Fire Department provides confined space rescue aboard the Base.

bb. Retrieval System: The equipment (including a retrieval line, chest or full-body harness, and a lifting device or anchor) used for non-entry rescue of workers from permit spaces.

cc. Testing: The process by which the hazards that may confront entrants of a permit space are identified and evaluated.

5. Hazards. Workers entering or working in confined spaces may encounter a number of potentially serious hazards. Such hazards may include oxygen deficient or enriched atmospheres, the presence of flammable or explosive gases, vapors, mists or dusts, or the presence of toxic atmospheres or materials. These hazards are not always readily apparent, detectable by odor, or visually obvious which may result in workers entering confined spaces without consideration of the potential dangers. Therefore, supervisors, shop foremen, and workers will consider that all confined spaces contain the most unfavorable

and unsafe conditions and entry into, or work in these spaces is prohibited until the tests, evaluations, and prescribed procedures of this Order are performed to ensure that safe conditions exist and are maintained.

6. General Requirements

a. Identification and Control Measures for Confined Spaces:

(1) Principal Directors of Directorates; Division Directors; Special Staff Officers; Commanding Officer, Headquarters Battalion; and Commanders/Officers in Charge of Tenant Activities or their representatives, in coordination with the CSPA, will evaluate their workplaces to identify confined spaces that their employees may be expected to enter. Consideration will be given to spaces that may not be the same geographic location as the directorate, but are controlled by that directorate. For example, an electrical manhole located in the (MC)3 crane way would be considered a Facilities and Services (F&S) Division workplace because F&S workers would enter the manhole even though it is located in another division. Spaces will be evaluated to determine if they meet one or more of the following characteristics of a PRCS: (Enclosure (1) is a decision flow chart to assist in this effort.)

(a) Contains or has a potential to contain a hazardous atmosphere;

(b) Contains a material that has the potential for engulfing an entrant;

(c) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or

(d) Contains any other recognized serious safety or health hazard.

(2) Any space that meets one or more of these characteristics will be designated as a PRCS.

(3) Confined spaces that do not meet one or more characteristics of a PRCS and do not contain, or have the potential to contain, any atmospheric hazard capable of causing death or serious physical harm will be designated as a non-permit confined space. Examples of non-permit confined spaces include ventilated walk-in freezers or coolers; or open-top spaces less than 4 feet deep, such as pits and excavations, or utility rooms.

(4) Principal Directors of Directorates; Division Directors; Specials Staff

Officers; Commanding Officer, Headquarters Battalion; and Commanders/Officers in Charge of Tenant Activities or their representatives, will inform all workers as to the presence of each PRCS and inform responsible shop foremen/supervisors as to the restrictions regarding entry into their PRCS's. In addition, each PRCS will be posted with a sign or any other equally effective means, indicating the existence and location of the PRCS.

NOTE: A sign reading "DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER" (similar language may be used).

(5) If it is determined that no one will ever enter the space either because the work will be done outside, or because no employee will ever be expected to enter the space, measures will be taken to effectively seal the space entrances. Measures to effectively seal a space include welding the openings shut or covering accesses with concrete. Once sealed, the spaces will no longer be considered part of the confined space program as entry into these spaces will no longer be possible.

(6) If it is determined that base employees or qualified contractors may enter the space, less permanent measures will be implemented to prevent unauthorized entry. Such measures include: locking, chaining, or bolting space entrances closed.

(7) If the Principal Directors of Directorates; Division Directors; Special Staff Officers; Commanding Officer, Headquarters Battalion; and Commanders/Officers in Charge of Tenant Activities decide that workers will enter the PRCS, they will ensure that their shop foremen/supervisors comply with the requirements in paragraph 7, Permitting Requirements, and make this Order available for their review.

b. Evaluation of Confined Space Hazards:

(1) Shop foremen/supervisors, with the assistance of the CSPA, ACSPA, or CST will evaluate each PRCS in their respective work areas. Shop foremen/supervisors will complete a PRCS Hazard Evaluation Form (enclosure (2)) documenting this process. Such evaluations will include, but are not limited to the following considerations:

(a) The contents or previous contents of the space which may result in the presence of a flammable, toxic, or oxygen deficient or enriched atmosphere.

(b) The location and configuration of the space, including restricted areas,

obstructions, remoteness, etc., which may interfere with or inhibit movement, ventilation, rescue efforts, etc.

(c) The potential hazards from the external environment such as proximity to compressed gas storage areas, petroleum storage areas, or piping and ducting that could affect the atmosphere within the space.

(d) The types of operation which are conducted in the space, particularly those which, by the very nature of the process, produce toxic materials, flammables, or ignition sources.

(e) The fixtures, devices, or equipment within the space that may create or contribute to hazardous conditions including piping, conduits, ducts, machinery or pressurized lines.

(f) The presence of other hazards such as slippery surfaces, deteriorated ladders, irritant or caustic materials.

(g) The boundary or adjacent spaces and their contents to ensure that fire or explosion are not caused in these spaces by the operation in the confined space.

c. Atmospheric Testing:

(1) Atmospheric testing is the single most important step in preventing confined space fatalities.

(2) Atmospheric testing of confined spaces by a confined space program representative is required only if workers must enter the space.

(3) Atmospheric testing of confined spaces will be done by either the CSPA, ACSPA, or CST using a calibrated, direct-reading instrument.

(4) CST's are authorized to test only those spaces or types of spaces specified in their appointment orders. They may also perform follow-up or periodic atmospheric testing when required by the CSPA or ACSPA.

(5) Initial atmospheric testing will be performed outside the space. Testing the interior of the space may be done by drop tests or insertion of sample probes and hoses into the space.

(6) Tests will be performed for the following conditions in the order given:

(a) Oxygen Contents. Acceptable oxygen range for safe entry is 19.5% to

23.5% by volume. An oxygen meter reading of other than 20.8% and outside of the meter drift range inherent to the device will be investigated by the atmospheric tester to determine the cause of oxygen displacement or consumption.

(b) Flammable Gases and Vapors. Acceptable entry level is less than 10% Lower Explosive Limit (LEL) of the gas for LEL calibration.

(c) Toxic Contaminants. Toxic materials (such as carbon monoxide, hydrogen sulfide and others), known or expected to be present, will be measured and compared to the applicable standard (i.e., OSHA PEL, ACGIH TLV, MSDS).

(7) Workers may not enter or occupy a space if a hazardous atmosphere is present.

(8) Only calibrated, direct-reading instruments will be used for atmospheric testing. Instruments will be properly maintained and calibrated within manufacturer's specifications by the atmospheric tester.

(9) Continuous or periodic (follow-up) atmospheric testing may be required if the space being entered cannot be isolated because the space is large or is part of a continuous system such as a sewer or steam tunnel. It may also be required if the work being conducted in the space has the potential of changing the atmospheric conditions in the space. The atmospheric tester will determine if continuous or periodic atmospheric testing is required.

(10) If a hazardous atmosphere is detected during continuous or periodic atmospheric testing:

(a) Workers will leave the space immediately;

(b) The space will be evaluated to determine how the hazardous atmosphere developed; and

(c) Measures will be implemented to eliminate the hazardous atmosphere before any subsequent entry takes place.

d. Confined Space Reclassification:

(1) When there are changes in the use or configuration of a non-permit confined space or when work must be done in the space that might increase the hazard to entrants, the space will be reevaluated and reclassified, if necessary,

as a PRCS.

(2) A space classified as a PRCS may be reclassified as a non-permit confined space under the following conditions:

(a) If the PRCS poses no actual or potential atmospheric hazards and if all hazards are eliminated without entering the space, the space can be designated a non-permit confined space for as long as the non-atmospheric hazards remain eliminated. Eliminating or removing hazards include draining, washing, rinsing, cleaning, isolating, blanking, blinding, double block and bleeding and implementing lockout/tagout precautions.

(b) If it is necessary to enter the PRCS to eliminate hazards, such entry will be performed using the procedures specified in paragraph 7, Permitting Requirements. If testing and inspection during that entry demonstrate that the hazards within the space have been eliminated, the PRCS may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.

(3) If a shop foreman/supervisor believes, based on the above criteria, that a PRCS meets the conditions for reclassification as a non-permit confined space, the foreman/supervisor will request the CSPA to reevaluate the PRCS.

(4) The reevaluation process will include a written document stating the basis and rationale for determining that all hazards have been eliminated. The document will contain the date, location of the space, and the signature of the CSPA. This document will be made available to each worker entering the space.

(5) If hazards arise within a PRCS that has been reclassified to a non-permit confined space, workers will exit the space. The shop foreman will notify the CSPA requesting the space be reevaluated to determine if it must be reclassified as a PRCS.

(6) If work is planned in the space that could introduce or reintroduce hazards that were previously eliminated, the shop foreman will notify the CSPA requesting the place be reevaluated to determine if it must be reclassified as a PRCS.

(7) Reclassification of a PRCS to a non-permit confined space is a useful and cost effective tool for meeting the federal regulatory requirements of confined space entry. It is especially well suited for a PRCS in which work in that PRCS eliminates all hazards and involves subsequent entries by several parties.

Reclassification of a PRCs should be pursued whenever possible provided all hazards in a space have been eliminated and documented proof exists that all hazards in the space have been eliminated.

7. Permitting Requirements. This section applies to permit-required confined spaces.

a. Shop foremen/supervisors will ensure the following requirements are fulfilled prior to and during PRCs entry operations:

(1) Measures are implemented to prevent unauthorized entry into PRCs such as those cited in paragraph 6a(6) of this Order.

(2) Hazard evaluations have been conducted on the space and documented on a PRCs Hazard Evaluation Form.

(3) Procedures and practices necessary for safe entry operations are developed and implemented including, but not limited to, the following:

(a) Specifying acceptable entry conditions;

(b) Isolating the permit space;

(c) Purging, inerting, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards;

(d) Providing pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards; and

(e) Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry;

NOTE: Completion of these measures and any other requirements specified by the CSPA, ACSPA, or CST will be documented on the entry permit.

(4) Entry equipment is provided, maintained, and users are properly trained on the following:

(a) Ventilating equipment needed to obtain acceptable entry conditions.

(b) Communications equipment necessary to ensure communication between the attendant and entrants, to monitor their status and alert them of the need for

evacuation.

(c) Personal protective equipment when feasible engineering and work practice controls do not adequately protect workers.

(d) Lighting equipment needed to enable safe work in and exit from the space in case of an emergency.

(e) Barriers and shields necessary to protect entrants from external hazards.

(f) Equipment, such as ladders, needed for safe ingress and egress.

(g) Rescue and emergency equipment needed to retrieve entrants and provide emergency services to rescued employees, except the equipment provided by rescue services.

(h) Any other equipment necessary for safe entry into and rescue from a PRCS.

NOTE: The Base Fire Department is available to assist in identifying and selecting appropriate retrieval and entry equipment.

(5) Atmospheric conditions of the PRCS are evaluated prior to entry per the atmospheric testing procedures in paragraph 6c of this Order.

(6) At least one attendant is provided outside the permit space for the duration of entry operations.

(7) Communications equipment is provided to enable an attendant to respond to an emergency in one or more spaces without distraction from the attendant's responsibilities in paragraph 91 of this Order, if multiple spaces are to be monitored by a single attendant.

(8) Ensure workers with active roles in entry operation, entry supervisors, attendants, and entrants are designated and trained on their duties and responsibilities. Training will include reviewing with workers the MSDS for toxins which may be present in the space.

(9) Each authorized entrant must use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, or above the entrant's head, or other point which will ensure that the entrant will present the smallest possible profile during removal. The other end of the retrieval line will be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer

becomes aware that rescue is necessary. A mechanical device will be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

(10) If an injured entrant is exposed to a substance for which a MSDS or other similar written information is required to be kept at the work site, that MSDS or written information will be made available to the medical facility treating the exposed entrant.

NOTE: While the ultimate responsibility for these requirements lies with the shop foreman/supervisor, confined space program representatives are prepared to assist and provide technical advice to ensure workers remain safe during PRCS entry operations.

b. Entry Permit:

(1) If entry into a PRCS is required, the shop foreman/supervisor of the workers requiring entry will request an atmospheric test and entry permit from the CSPA, ACSPA, or CST. The request, which may be verbal, will include the space identification number, description of the space, and the type of work to be performed in the space. The foreman/supervisor should notify the CSPA or designated representative as soon as they are aware that entry into a space is required, even if the required entry date is several weeks away as preparations to the space may have to be made prior to actual entry.

(2) The entry permit contains administrative information, the results of atmospheric testing, entry requirements, and the names of entry operation participants. When completed, it documents the accomplishment of measures required in paragraph 7a(3) of this Order.

(3) The only authorized entry permit for use aboard the Base is the MCLB Albany Confined Space Entry Permit Form, MC-ALB-5100/14 (12-94). A non-reproducible sample of this form is provided as enclosure (3).

(4) The entry permit will be completed in full and signed by the entry supervisor before workers enter the PRCS.

(5) The completed permit will be made available at the time of entry to all authorized entrants, by posting it at all entrances so that entrants can confirm that pre-entry preparations have been completed.

(6) The duration of the permit will not exceed the time required to complete the assigned task during that shift; normally 8 hours.

(7) The entry supervisor will terminate entry and cancel the permit when:

- (a) Operations have been completed; or
- (b) An atmospheric condition that is outside of the acceptable entry levels arises in the permit space; or
- (c) One or more of the requirements for authorized entry as specified on the permit has been breached, interrupted or has failed.

(8) The entry supervisors will inform the CSPA or confined space representative of any problems encountered during entry operations so that appropriate revisions to the confined space program can be made.

c. Alternate PRCS Entry Procedures. Reference (a) contains provisions for slightly less stringent PRCS entry requirements for spaces in which the only risk to entrants is a hazardous atmosphere. Alternate PRCS entry procedures will be used only for those spaces that have a continuous atmospheric monitoring system. The CSPA is responsible for designating PRCS's eligible to be entered using alternate procedures and for coordinating entry procedures with the respective shop foreman/supervisor.

8. Training

a. Training will be provided so that all employees involved in confined space entry acquire the understanding, knowledge and skills necessary for the safe performance of their duties. Minimum specific training requirements for each position are as follows:

(1) CSPA's and ACSPA'S. Completion of the course: Confined Space Safety (CIN: A493-0030), Navy Occupational Safety, Health and Environmental Training Center, Naval Air Station, Norfolk, Virginia, point of contact at (804) 445-8778, DSN: 565-8778. (8 day course). Verification of this training will be maintained with the Commanding General's written appointment to the position.

(2) Confined Space Technicians (CST's). CST's will be trained by the CSPA and appointed in writing by the Safety and Occupational Health Manager. CST's will be re-certified annually. Training will include:

- (a) A review of this Order and familiarization with 29 CFR 1910.146;

- (b) Responsibilities of position;
- (c) Permitting procedures and filling out an entry permit;
- (d) Proper use, maintenance and calibration of atmospheric test equipment;
- (e) Use and limitations of personal protective equipment;
- (f) Procedures for the spaces they are authorized to perform atmospheric testing on;
- (g) Demonstrated performance on atmospheric testing and completing an entry permit.

(3) Shop foremen/supervisors will attend the Confined Space Entry portion of the Base Safety and Occupational Health Office's annual Industrial Supervisor's Safety Training.

(4) Entry supervisor, attendants, and/or entrants will be trained by their respective shop foremen and supervisors. Training will include a review of this Order, identification of the hazards in the PRCS's in their work areas, and their duties and responsibilities as described in this Order. The Safety and Occupational Health Office has confined space training resources and can provide training to entry supervisors, attendants and entrants.

(5) Rescue and Emergency Service. The Fire Department will provide rescue and emergency services. Each member of the rescue service will be trained to perform the assigned rescue duties and the duties of entrants. Training courses will be approved by and coordinated through the Safety and Occupational Health Manager.

9. Duties and Responsibilities

a. Commanding General, MCLB Albany, or designated representative, will appoint in writing one person from the Safety and Occupational Health Office as the CSPA. Appointment to the position will be upon completion of the training requirement in paragraph 8a(1).

b. Safety and Occupational Health Manager will:

- (1) Serve as the focal point for administration of this program;
- (2) Ensure that CSPA and ACSOA's are trained, qualified, and certified to perform their duties;

(3) Provide the resources and expertise needed to assist shop foremen/supervisors with the hazard evaluation in PRCS's;

(4) Provide atmospheric testing and entry permits service to those subordinate commands, divisions or tenant activities aboard base without a CST, or to subordinate commands, divisions or tenant activities whose CST is not authorized to perform atmospheric test on the space needed to be entered;

(5) Budget for anticipated confined space resources and training requirements related to confined space program administration.

c. CSPA will:

(1) Establish and maintain a program which ensures safe confined space entry;

(2) Administer the Confined Space Program;

(3) Develop a written confined space entry program that includes permitting requirements and procedures.

(4) Perform atmospheric testing and issue entry permits;

(5) Train, certify, and recommend for appointment ACSA's and CST's;

(6) Perform confined space reclassification evaluations;

(7) Assign PRCS's eligible for Alternate PRCS Entry Procedures;

(8) Maintain required program documents such as issued entry permits, training records, and applicable references;

(9) Coordinate with contractor personnel performing work in PRCS's aboard the Base;

(10) Develop and maintain a consolidated list of the confined spaces identified per paragraph 6a. Forward the consolidated list to the Resident Officer-in-Charge of Construction;

(11) Review all new and existing construction plans for confined space requirements.

d. ACSPA's will:

(1) Function as the CSPA during the absence of the CSPA.

(2) Assist in performing the same specific duties as the CSPA contained in paragraph 9c in coordination with and under the technical supervision of the CSPA.

e. CST's will:

(1) Complete and maintain an accurate PRCS Hazard Evaluation Form for each PRCS in their command, division, or activity;

(2) Perform atmospheric testing and issue entry permits for PRCS's in their commands, divisions, or activities for which they are authorized;

(3) Maintain a record of issued permits;

(4) Perform periodic or follow-up atmospheric testing at the request of the CSPA;

(5) Consult with the CSPA for technical assistance;

(6) Properly use, maintain and calibrate required instruments and equipment.

f. Base Fire Chief will:

(1) Provide rescue and emergency services for confined space entry mishaps aboard the Base including services to contractor personnel;

(2) Ensure rescue and emergency service personnel are properly trained;

(3) Provide the necessary equipment and devices for confined space rescue;

(4) Grant hot work permits when required on the confined space entry permit;

(5) Ensure compliance with paragraph 10 of this Order.

g. Resident Officer-in-Charge of Construction, Contracting Officers, and Contracting Officer's Representatives in all subordinate commands, divisions, and tenant activities will:

(1) Invite the CSPA to participate in the planning of any new construction, or renovations to existing structures that may create or modify existing PRCS's.

(2) Notify the CSPA of pending contracts that may involve contractor entry or work in existing PRCS's.

(3) Notify the CSPA when contractors perform work aboard Base that involves permit space entry so the following information exchange can occur:

(a) Notify the contractor that the workplace contains PRCS's and that entry is allowed only through compliance with a permit space program meeting the requirements of reference (a);

(b) Apprise the contractor of the elements that make the space a PRCS;

(c) Notify the contractor of any previous experience with the space, including known or potential hazards and established entry procedures and;

(d) Notify the contractor of any precautions or procedures that have been implemented to protect workers in or near permit spaces where contract personnel will be working;

(4) Ensure contractor compliance with paragraph 11, of this Order.

h. Division Directors, Special Staff Officers, Commanding Officer, Headquarters Battalion and Commanders/Officers in Charge of Tenant Activities will:

(1) Ensure personnel under their command are informed of the hazards of confined spaces and the provisions of this Order;

(2) Provide the necessary resources to their workers to ensure compliance with this Order. These resources include additional training for key participants in the program and equipment specified in paragraph 7a(4) of this Order;

(3) Recommend to the CSPA, personnel in their command, division or activity for certification as CST as needed to conduct entry operations.

i. Shop foremen/supervisors are responsible for ensuring that permit requirements are met and that workers are trained in their assigned duties and responsibilities.

j. Entry supervisors will ensure that the space is safe for entry by complying with the permitting requirements and procedures in paragraph 7 of this Order.

k. Entrants will:

- (1) Be familiar with the hazards that may be faced during entry, including information on the mode, signs, or symptoms, and consequences of the exposure;
- (2) Know the proper use of equipment;
- (3) Communicate with the attendant as necessary to enable the attendant to monitor entrants status and to enable the attendant to alert entrants of the need to evacuate the space.
- (4) Alert the attendant whenever:
 - (a) The entrant recognizes a warning sign, symptoms of exposure to a dangerous situation, or
 - (b) The entrant detects a prohibited condition.
- (5) Exit from the permit space as quickly as possible whenever;
 - (a) An order to evacuate is given by the attendant or entry supervisor.
 - (b) The entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
 - (c) The entrant detects a prohibited condition.

I. Attendants will:

- (1) Be familiar with the hazards that may be faced during entry, including information on the mode, signs, or symptoms, and consequences of the exposure;
- (2) Be aware of possible behavioral effects of hazard exposure in authorized entrants;
- (3) Continuously maintain an accurate count of authorized entrants in the permit space and ensure that the means used to identify authorized entrants accurately identifies who is in the permit space;
- (4) Remain outside the permit space during entry operations until relieved by another attendant;

- (5) Communicate with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate;
- (6) Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space;
- (7) Order the authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - (a) If the attendant detects a prohibited condition;
 - (b) If the attendant detects behavioral effects from exposure to hazardous materials in an authorized entrant;
 - (c) If the attendant detects a situation outside the space that could endanger the authorized entrants; or
 - (d) If the attendant can not effectively and safely perform all the duties required under this program.
- (8) Summon rescue and emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards;
- (9) Take the following actions when unauthorized persons approach or enter a permit space while entry is underway:
 - (a) Warn unauthorized persons to stay away from the permit space;
 - (b) Advise unauthorized persons that they must exit immediately if they have entered the permit space; and
 - (c) Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space;
- (10) Perform non-entry rescue;
- (11) Never enter the permit space(s) that they are responsible for attending;
- (12) Perform no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.

10. Rescue and Emergency Services. The following requirements apply to the Fire Department's Confined Space Rescue and Emergency Services Team.

- a. Each member of the team will be provided with, and trained on the personal protective equipment and rescue gear used to perform confined space rescues.
- b. Each member of the rescue service will be trained to perform the assigned rescue duties and training required of authorized entrants under this program.
- c. Each member of the rescue service will practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, mannequins, or actual persons from the actual permit spaces or from representative permit spaces. Representative permit spaces will, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed. The annual practice rescue will be coordinated with the CSPA.
- d. Each member of the rescue service will be trained in basic first-aid and in cardiopulmonary resuscitation (CPR). At least one member of the rescue service holding current certification in first aid and in CPR will be available.

11. Contractor Personnel

- a. Contractors aboard MCLB will execute their own confined space entry program and are not authorized to enter PRCS's under a government issued permit.
- b. Contractors will use the Base's confined space rescue and emergency service.
- c. Contractors performing work in confined spaces will:
 - (1) Inform the Base Confined Space Program representative of the confined space permit program that the contractor will follow;
 - (2) Obtain any available information regarding permit space hazards and entry operations from the Base Confined Space Program representative; and
 - (3) Coordinate entry operations with the Confined Space Program representative when both Base employees, and contractor personnel will be working in or near a PRCS.
 - (4) Inform the confined space program representative of any hazards discovered or confronted.

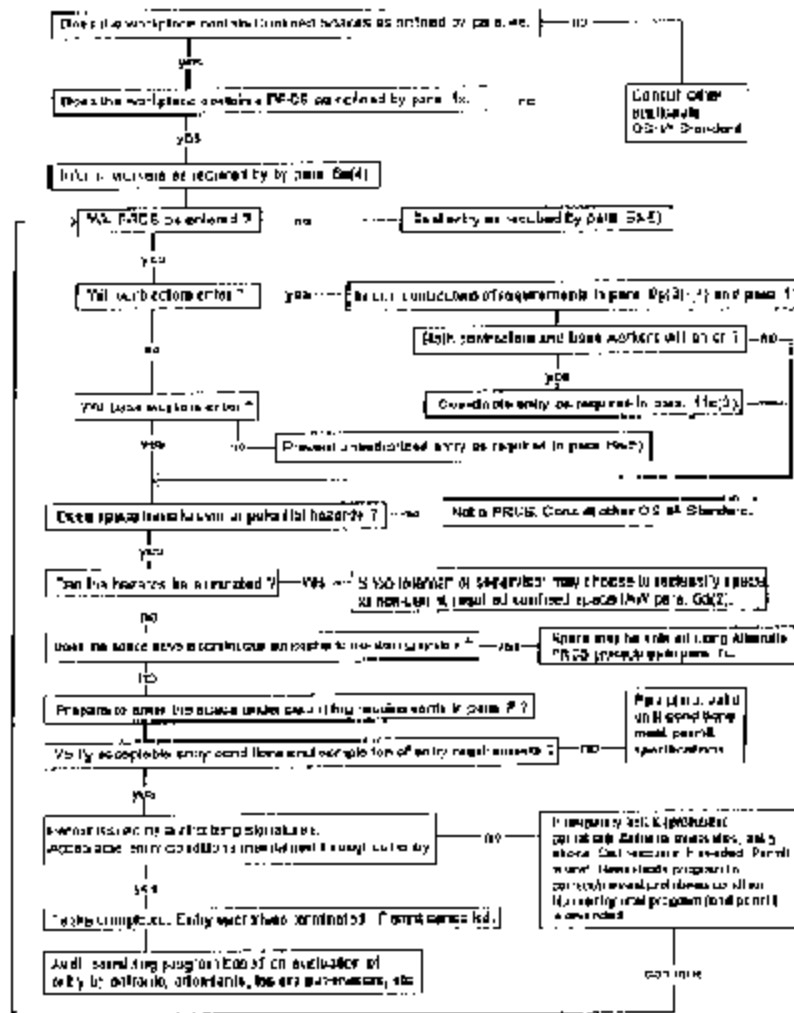
12. Applicability. This Order is not applicable to the Blount Island Command.

R. C. Plunkett

Chief of Staff

DISTRIBUTION: E

ENCLOSURE (1)



ENCLOSURE 112

ENCLOSURE (2)

Permit Required Confined Space (PRCS) Hazard Evaluation Form

1. Does the space meet one or more characteristics of a PRCS as described in paragraph 6a(1) of BO 5100.12A. If yes, continue. If no, the space is not a PRCS and is not covered by BO 5100.12A.
2. What characteristics of a PRCS does this space possess?

3. Where is the space? Give division, building, room or shop number.
4. Give a physical description of the space.
5. Is the PRCS marked with a sign warning of unauthorized entry?
6. Are entrances to the space secured to prevent unauthorized entry?
7. Are workers within the area aware of the PRCS?
8. Who is the shop foreman or supervisor of workers who may enter the space? Include phone number.
9. Do contractors ever enter the space? If so, refer to paragraph 11, BO. 5100.12A.
10. What are the contents or previous contents of the space that could result in the presence of flammable, toxic, or oxygen deficient or enriched atmosphere?
11. What are the mechanical hazards of the space such as moving parts or machinery?
12. What type of fixtures, devices, or equipment such as piping, conduits, ducts, or pressurized lines are in the space?
13. Is there anything in the space or next to the space that could interfere with or inhibit movement, ventilation, or rescue efforts?
14. How often is the space entered?
15. What type of work is normally performed in the space?
16. What other hazards such as slippery surfaces, deteriorated ladders, irritant or caustic materials are present in the space?
17. What are the contents of boundary or adjacent spaces that may be effected by operations in this space?
18. What can be done to the space to make it safe for entry?
Return completed form to the Confined Space Program Representative

ENCLOSURE (3)

